

ABSTRACT OF THE DISCLOSURE

The present invention relates to a digital data  
play back apparatus for converting a digital data a  
signal read from a recording medium by sampling in a  
5 clock cycle, equalizing this digital data to a waveform  
which agrees with a partial response class on the basis  
of the clock, and detecting data on the basis of the  
clock with respect to the equalized signal waveform.  
Then, this apparatus detects a timing phase gradient  
10 between the equalized signal waveform and the clock,  
and controls a clock frequency on the basis of the  
detected timing phase gradient.